PTO:S8:06x(04-07)
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US Patent & Trademanh Oliko: US DEPARTMENT OF COMMERCE
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Substitut	te for form 1449A	VPTO				
INFO	RMATION	DISCLOSU	JRE		Complete if Known	
STAT	EMENT B	Y APPLICA	ANT	Application Number	10/828,745	
				Filing Date	04/21/2004	
				First Named Inventor	Michael L. Whitehead	
				Art Unit	3662	
				Examiner Name	Gregory C. Issing	
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Sheet	1	of	7	Attorney Docket No: 4	1011	

			US PAT	TENT DOCUMENTS	
Initial * No		Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Filing Date If Appropriate
		US-6052647	04/18/2000	Parkinson et al.	
		US- 2003/187560	10/02/2003	Keller, Russell J., et al.	
		US-6230097	05/08/2001	Dance et al.	
		US-5523761	06/04/1996	Gildea	
		US-5739785	04/14/1998	Allison	
		US-5148179	09/15/1992	Allison	
		US-5155490	10/13/1992	Spradley et al.	
-		US-5389934	02/14/1995	Kass	
		US-5467282	11/14/1995	Dennis	
		US-5477228	12/19/1995	Tiwari et al.	
		US-5702070	12/30/1997	Waid	
		US-5821900	10/13/1998	Kishimoto	
		US-5828336	10/27/1998	Yunck et al.	
		US-5903235	05/11/1999	Nichols	-
		US-6018313	01/25/2000	Englemayer et al.	
		US-6049304	04/11/2000	Rudel et al.	
		US-6023239	02/08/2000	Kovach	
	-	US-6144335	11/07/2000	Rogers	
		US-6304210	10/16/2001	Allison et al.	
		US-6324473	11/27/2001	Eschenbach	
		US-6371416	04/16/2002	Hawthorne	
		US-6411254	06/25/2002	Moeglein et al.	
		US-6415229	07/02/2002	Diekhans	
		US-6425186	06/30/2002	Oliver	
		US-6484097	11/19/2002	Fuchs et al.	
		US-6567041	05/20/2003	O'Dell	
		US-6618671	09/09/2003	Dooley et al.	
		US-6756938	06/29/2004	Zhao et al.	
		US-6788951	09/07/2004	Aoki et al.	
		US-6819269	11/16/2004	Flick	
1		US-6865484	03/08/2005	Miyasaka	
		US-6822314	11/23/2004	Beasom	
		US- 2005/0116859	06/02/2005	Miller	
		US- 2004/0212533	10/28/2004	Whitehead	

EXAMINER

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Substitu	ite for form 1449	A/PTO			
INFO	RMATION	DISCLOS	JRE		Complete if Known
STAT	EMENT E	BY APPLICA	ANT	Application Number	10/828,745
				Filing Date	04/21/2004
				First Named Inventor	Michael L. Whitehead
				Art Unit	3662
				Examiner Name	Gregory C. Issing
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	,				
Sheet	2	of	7_	Attorney Docket No: 4	011

				TENT DOCUMENTS	
Initial * No		Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Filing Date If Appropriate
		US-6792380	09/14/2004	Toda	
		US-6313788	11/06/2001	Wilson	
		US-6587761	07/01/2003	Kumar	
		US-6256583	07/03/2001	Sutton	
		US-5917448	06/29/1999	Mickelson	
		US-5543804	08/06/1996	Buchler et al.	
		US-5757316	05/26/1998	Buchler	
		US-5617317	04/01/1997	Ignagni	
		US-5561432	10/01/1996	Knight	
		US-6421003	07/16/2002	Riley et al.	
		US-6249398	07/10/2001	Riley	
		US-5534875	07/09/1996	Diefes et al.	-
		US-5296861	03/22/1994	Knight	
_		US-5511623	04/30/1996	Frasier	
		US-5564632	09/09/1997	Walker	
		US-5725230	03/10/1998	Walkup	
		US-6434462	08/13/2002	Bevly et al.	
		US-6631916	10/14/2003	Miller, Merle E.	
		US-6076612	06/20/2000	Carr et al.	
		US-6688403	02/10/2004	Bernhardt et al.	
		US-6336066	01/01/2002	Pellenc et al.	
		US-4132272	01/02/1979	Holloway et al.	
		US-4453614	06/12/1984	Allen et al.	
		US-5810095	09/22/1998	Orbach et al.	
		US-6314348	11/06/2001	Winslow, Phillip D.	
		US-5935183	08/10/1999	Sahm et al.	
		US- 2004/0210357	10/21/2004	McKay et al.	
		US-6501422	12/31/2002	Nichols, Mark E.	
		US-4802545	02/07/1989	Nystuen et al.	
		US- 2004/0186644	09/23/2004	McClure et al.	
		US-3737710	04/17/1973	Sanders et al.	
		US-5918558	07/06/1999	Susag	
		US-5031704	07/16/1991	Fleischer et al.	
		US-5156219	10/20/1992	Schmidt et al.	05/09/1991
		US-5941317	08/24/1999	Mansur	07/30/1997

EXAMINER

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Substitut	e for form 1449	VPTO			 	
INFO	RMATION	DISCLOSU	JRE		Complete if Known	
		Y APPLICA		Application Number	10/828,745	
				Filing Date	04/21/2004	
				First Named Inventor	Michael L. Whitehead	
				Art Unit	3662	
				Examiner Name	Gregory C. Issing	
(a	Use as many she	eets as necessary)				
	 		<u> </u>			
Sheet	3	of	7	Attorney Docket No: 4011		

US PATENT DOCUMENTS Examiner Cite Document Number Publication Name of Patentee or Applicant of Cited Document Filing Date							
Initial *	I * No Date		Date	Name of Patentee or Applicant of Cited Document	Filing Date If Appropriate		
		US-6553299	04/22/2003	Keller et al.			
		US- 2003/0009282	01/09/2003	Upadhyaya et al.			
		US-6671587	12/30/2003	Hrovat et al.			
		US-6445983	09/03/2002	Dickson, Monte A., et al.			
		US- 2002/165648	11/07/2002	Zeitler, David W.			
		US-6703973	03/09/2004	Nichols, Mark E.			
		US-5548293	08/20/1996	Cohen et al.			
		US-5546093	08/13/1996	Gudat et al.			
	-	US- 2002/165669	11/07/2002	Pinto, Robert et al.			
		US-5875408	02/23/1999	Pinto, Robert	<u> </u>		
		US-5375059	12/20/1994	Krytsos et al.	-		
		US-5923270	07/13/1999	Sampo et al.			
US-5491636 0		02/13/1996	Robertson				
		US-5610845	03/11/1997	Slabinski			
		US-5777578	07/07/1998	Chang et al.			
		US-5862501	01/19/1999	Talbot et al.			
		US-5928309	07/27/1999	Korver et al.			
		US-5940026	08/17/1999	Popeck			
		US-5943008	08/24/1999	Dusseldorp			
		US-5987383	11/16/1999	Keller			
		US-6062317	05/16/2000	Gharsalli			
		US-6205401	03/20/2001	Pickhard et al.	-		
		US-6236924	05/22/2001	Motz			
		US-6325684	12/04/2001	Knight			
		US-6345231	02/05/2002	Quincke			
		US-6445990	09/03/2002	Manring	-		
		US-6466871	10/15/2002	Reisman et al.			
		US- 2002/20038171	03/28/2002	Deguchi et al.			
		US- 2002/0175858	11/28/2002	Takahashi			
		US- 2002/0038171	03/28/2002	Deguchi et al.			
		US-6463374	10/08/2002	Keller et al.			

EXAMINER

PTO S8/08i(04-07)
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Substitut	e for form 1449	VPTO			
INFO	RMATION	DISCLOSU	JRE		Complete if Known
		Y APPLICA		Application Number	10/828,745
				Filing Date	04/21/2004
				First Named Inventor	Michael L. Whitehead
				Art Unit	3662
				Examiner Name	Gregory C. Issing
(t	Jse as many she	eets as necessary)			
Sheet	4	of	7	Attorney Docket No: 4	011

			US PA	FENT DOCUMENTS	
Examiner Initial *	Cite No	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Filing Date If Appropriate
		US-5644139	07/01/1997	Allen	
		US-6389345	05/14/2002	Phelps	
		US-4858132	08/15/1989	Holmquist	
		US-4918607	04/17/1990	Wible	
		US-5369589	11/29/1994	Steiner	
		US-5390125	02/14/1995	Sennott et al.	
		US-5592382	01/07/1997	Colley	
		US-5612883	03/18/1997	Shaffer et al.	
		US-5615116	03/25/1997	Gudat et al.	
		US-5684696	11/04/1997	Rao et al.	
		US-5717593	11/04/1997	Gvilli	
		US-5765123	06/09/1998	Nimura et al.	
		US-5838562	11/17/1998	Gudat et al.	
		US-5945917	08/31/1999	Harry	
		US-5956250	09/21/1999	Gudat et al.	
		US-6014608	01/11/2000	Seo	
		US-3727710	04/17/1973	Sanders et al.	
		US-3899028	08/12/1975	Morris et al.	
		US-4180133	12/25/1979	Collogan et al.	
		US-4637474	01/20/1987	Leonard	
		US-5152347	10/06/1992	Miller	
		US-5207239	05/04/1993	Schwitalia	
		US-5255756	11/28/2006	Follmer et al.	
		US-5664632	09/09/1997	Frasier	
		US-6233511	05/15/2001	Berger et al.	
		US-6431576	08/13/2002	Viaud et al.	
		US-6865465	03/08/2005	McClure	
		US- 2002/0072850	03/08/2005	McClure et al.	
		US-5476147	12/19/1995	Fixemer	
		US-7026982	04/11/2006	Toda et al.	
		US-7162348	01/09/2007	McClure, John A., et al.	
		US- 2006/0017611	01/26/2006	Hatch et al.	
		US-6449558	09/10/2002	Small, David A.	
		US-6100842	08/08/2000	Dreier et al.	
		US-5936573	08/10/1999	Smith, Derek S.	

EXAMINER

PTO/SB-08e(04-07)
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US Patem 1 Trademark Office, U.S. DEPARTMENT OF COMMERCE
of information unless it contains a valid OMB control number.

Substitut	te for form 1449/	VPTO		Inder the Paperwork Reduction Act of 1995, no persons are re	egured to respond to a collection of information unless it contains a valid OMB control numb
INFO	RMATION	DISCLOS	URE		Complete if Known
STAT	EMENT B	Y APPLICA	ANT	Application Number	10/828.745
				Filing Date	04/21/2004
				First Named Inventor	Michael L. Whitehead
				Art Unit	3662
				Examiner Name	Gregory C. Issing
(Use as many she	eets as necessary)			
Sheet	5	of	7	Attorney Docket No: 4	1011

			US PA	TENT DOCUMENTS	
Examiner Initial *	Cite No	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Filing Date If Appropriate
		US-6553311	04/22/2003	Aheam et al.	
		US-7162384	01/09/2007	Browning et al.	
		US-6539303	03/25/2003	McClure et al.	
		US-6199000	03/06/2001	Keller et al.	
		US-6198992	03/06/2001	Winslow	
_		US-6711501	03/25/2003	McClure, John A., et al.	
		US-6397147	05/28/2002	Whitehead, Michael	
		US-6643576	11/04/2003	O'Connor et al.	
		US-6377889	04/23/2002	Soest, Gerard V.	
		US-6236916	05/22/2001	Staub et al.	
		US-6542077	04/01/2003	Joao	
		US-6469663	10/22/2002	Whitehead et al.	
		US-6285320	09/04/2001	Olster et al.	
		US-6229479 05/08/2001		Kozlov et al.	
		US-6191733	02/20/2001	Dizchavez	
		US-6122595	09/19/2000	Varley et al.	
		US-6057800	05/02/2000	Yang et al.	
		US-6515619	02/04/2003	McKay, Jr.	
		US-5969670	10/19/1999	Kalafus et al.	
		US-4812991	03/14/1989	Hatch	
		US-5471217	11/28/1995	Hatch et al.	
		US-6198430	03/06/2001	Hwang et al.	
		US-5583513	12/10/1996	Cohen	
		US-5608393	03/04/1997	Hartman	
		US-5610616	03/11/1997	Vallot et al.	
		US-5477458	12/19/1995	Loomis	
		US-6392589	05/21/2002	Rogers et al.	
		US-5899957	05/04/1999	Loomis	
		US-6061632	05/09/2000	Dreier	
		US-5365447	11/15/1994	Dennis	
		US-4751512	06/14/1988	Longaker	
j		US-5617100	04/01/1997	Akiyoshi et al.	
		US-5323322	06/21/1994	Mueller et al.	
		US-5490073	02/06/1996	Kyrtsos	<u> </u>

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			,	Under the Paperwork Reduction Act of 1995, no persons are re	PTO SE 08a(04-07) Aportived for use through 7/31/1006, 0/HB 0551-0031 US haled 5 fradement office, U.S. DEFARTMENT OF COMMERCE opured to respond to a collection of information unless it contains a valid OMB control number.
Substitut	e for form 1449A	VPTO			
INFO	DMATION	DISCLOSU	RF		Complete if Known
		Y APPLICA		Application Number	10/828,745
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				First Named Inventor	Michael L. Whitehead
				Art Unit	3662
				Examiner Name	Gregory C. Issing
(Use as many sh	eets as necessary)			
Sheet	6	of	7	Attorney Docket No: 4	4011

Examiner Initials*	Cite No	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of cited Document	T²
		WO- WO98/36288	08/20/1998	Korver, Kelvin	
		JP- JP07244150	09/19/1995	Korver, Kelvin	
		WO- WO2005/11938 6	12/15/2005	McClure, John A., et al.	
		WO- WO03019430	03/06/2003	Overschie,	
-		WO- WO0024239	05/04/2000	Agsystems Pty, Ltd,	

	OTHE	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		PARKINSON, BRADFORD W., et al., "Global Positioning System: Theory and	
		Applications, Volume II", Bradford W. Parkinson and James J. Spiker, Jr., eds.,	
		Global Postioning System: Theory and Applications, Volume II, 1995, AIAA,	
		Reston, VA, USA, pp. 3-50, (1995),3-50	
		"http://www.patentstorm.us/class/342/357.11-Attitude_determination.html",	
		"Orthman Manufacturing Co., www.orthman.com/htm;guidance.htm", regarding the "Tracer Quick-Hitch",	
		LIN, DAI et al., "Real-time Attitude Determination fro Microsatellite by Lamda	
		Method Combined with Kalman Filtering", A Collection fof the 22nd AlAA	
		International Communications Satellite Systems Conference and Exhibit	
		Technical Paers Volume 1, Monetrey, California American Institute of	
		Aeronautics and Astronautics, Inc., (May 2004),136-143	
		XU, JIANGNING et al., "An EHW Architecture for Real-Time GPS Attitude	
		Determination Based on Parallel Genetic Algorithm", The Computer	}
		SocietyProceedings of the 2002 NASA/DOD Conference on Evolvable Hardware (EH'02), (2002).	
		HAN, SHAOWEL et al., "Single-Epoch Ambiguity Resolution for Real-Time GPS	
		Attitude Determination with the Aid of One-Dimensional Optical Fiber Gyro", GPS	
		Solutions, Vol. 3, No. 1, PP. 5-12 (1999) John Wiley & Sons, Inc.,	
		PARK, CHANSIK et al., "Integer Ambiguity Resolution for GPS Based Attitude	
		Determination System", SICE '09, July 29-31, Chiba. 1115-1120	<u> </u>
		"International Search Report and Written Opinion", PCT/US2004/015678, filed 05/17/2004, mailed 06/21/2005.	

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Substitut	e for form 1449A	VPTO				
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	Complete if Known 10/828,745	
				Filing Date	04/21/2004	
				First Named Inventor	Michael L. Whitehead	
				Art Unit	3662	
				Examiner Name	Gregory C. Issing	
(1)	Use as many she	eets as necessary)				
Sheet	7	of	7	Attorney Docket No: 4011		

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		"ISO", 11783 Part 7 Draft Amendment 1 Annex, Paragraphs B.6 and B.7.ISO 11783-7 2004 DAM1, ISO: March 8, 2004,	